

## ABSTRACT

A method for making the characteristics of the distribution of film thickness uniform is provided, avoiding  
5 generation of phase differences among streams of high-frequency electric power by manipulating the electrical characteristics of cables through which the high-frequency electric power is transmitted. Coaxial cables (19a to 19h and 24a to 24h) having a standard length and vacuum cables (20a to  
10 20h and 25a to 25h) are installed, then a film is formed on a substrate by actually supplying high-frequency electric power, and thereafter the condition of vapor deposition such as the thickness of the film is observed. Based on the observations, the full lengths of the coaxial cables which communicate with  
15 the feeding points and the electrodes which correspond with positions over the substrate which need to be adjusted are changed. The coaxial cables are installed again, and high-frequency electric power equivalent to that used in the previous operation is supplied to form a film. The  
20 distribution of the film formed on the substrate is made uniform by repeating the above operations.